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CIRCULAR No. 16

OF THE

State Crop Pest Commission

OF

LOUISIANA

THE MOST IMPORTANT FACTOR IN
SOLVING THE BOLL WEEVIL
PROBLEM

BY

AUGUST MAYER



ISSUED UNDER DIRECTION OF THE

STATE BOARD OF AGRICULTURE AND IMMIGRATION

CHAS. SCHULER, Commissioner

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PREFACE.

Since the Civil War no factor has been as instrumental in altering agricultural conditions in the South as the advent of the boll weevil.

While it is of the greatest importance that every effort still be put forth to secure remedies and especially to secure control of the weevil by natural factors and to encourage natural enemies and parasites of the weevil by continued entomological work, it is not, at the same time, amiss to consider other factors—fully as important as these—which will enter into the final solution of the problem.

The South is favored with a natural monopoly on the world's greatest staple, and this monopoly the Southern farmer must maintain despite the weevil.

That this can be done is already being demonstrated by many a progressive farmer in Texas and Louisiana who, by diligent study and observation, has learned the scientific principles upon which agricultural work must be conducted to bring the highest returns, and who has learned how to apply these principles on his own farm by fertilizing intelligently, cultivating according to the needs of his crops and by diversifying in such a manner as to make each crop not only yield a profit, but also contribute, directly or indirectly, to the fertility of his lands and to the bounty of succeeding crops.

To continue producing cotton profitably despite the weevil will require soils kept in the best of physical condition and containing an ample supply of plant food. The fertility of Louisiana soils cannot be conserved indefinitely without live stock being produced in greater abundance than at present. To the profitable production of beef and dairy cattle, the Texas fever cattle tick stands as the greatest obstacle. With this arch enemy of both the cattle raiser and cotton grower exterminated, no finer stock raising country in the world can be found than in Louisiana. The future successful culture of cotton depends directly upon the eradication of the cattle tick.

The importance of the tick eradication movement, now obtaining such promising headway in the Southern States, is convincingly shown in the subjoined article by Mr. August Mayer, the well-known cattle raiser of Shreveport, La. Mr. Mayer has kindly accorded us permission to publish his article, and we believe every cotton planter, every manufacturer, every consumer of cotton goods and everyone interested even remotely in the success of Southern agriculture, can read Mr. Mayer's article with both interest and profit.

WILMON NEWELL, Secretary,
State Crop Pest Commission of Louisiana.

Baton Rouge, La., June 20, 1907.

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State Crop Pest Commission OF LOUISIANA.

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The Circulars of the State Crop Pest Commission are sent free of charge to all farmers and fruit growers of Louisiana who make application therefor.

THE MOST IMPORTANT FACTOR IN SOLVING THE BOLL WEEVIL PROBLEM.

BY AUGUST MAYER.

The wisdom of Congress in making appropriations at its last two sessions for the eradication of the Texas fever cattle tick is quite apparent from the annual report of the Secretary of Agriculture, as it is also from personal observation to those living within the affected territory who have taken an active interest in this momentous movement against what is perhaps the greatest enemy to American agriculture. I dare say that the interest aroused among Southern agriculturists and stockmen particularly, and to a great extent the people generally, in this new work has surprised even the most sanguine of those responsible for the war against the tick. The short campaign of only a few months' duration conducted by the Department of Agriculture, with only very limited means at its command, has proven that the work authorized by Congress was well timed, and that the greatest good may be expected from continued and larger agitation and practical work under the direction of the Agricultural Department. It needs only the cordial support of Congress for several years and the National Department of Agriculture, with co-operation of the several infested states, and we will drive this costly pest from our continent.

Moreover, we are not certain but what even more compre-

hensive plans for eradication can be perfected, and these must be based upon an exhaustive study of the tick from the entomological standpoint to determine its vulnerable points under all conditions.

I have on former occasions, by speech and by writing, shown the enormous benefit to be derived from the eradication of the cattle tick. In those utterances I have chiefly dwelled on the subject from the standpoint of the husbandman. But there is a feature to it that has not been extensively mentioned as yet, and with which I, as a cotton grower, am much more concerned than as a producer of live stock. Indeed, for the Southern United States this view of the matter, to which I wish now to call your special attention, is much more important and far-reaching than all others.

The point which I wish to make clear and bring prominently to your attention is this: *That the eradication of the cattle tick is a necessity in order to maintain the future undisputed supremacy of the United States in the production of cotton.*

I will say that at the present and in the immediate future the cattle tick, as an indirect enemy to the cotton industry, exceeds in importance the muchly and justly dreaded boll weevil, and that, as an enemy to the cotton industry, the cattle tick constitutes from now on until it is eradicated from the cotton producing states, a more important factor in our national economy than it does directly as a hindrance in the production of live stock, notwithstanding the enormity of the damage caused by it in the latter role.

The chief industry of the Southern United States should and must forever be the production of cotton, for more than one reason.

First, among all known lands ours seems best suited to the growing of this one great world necessity.

Second, it is the product which makes foreign countries yearly our debtors in the interchange of goods.

Third, cotton, among all products of the earth brought forth directly by the soil, is the one most ideally adapted for a country's export, because by the exportation of the cotton fibre we do not rob our soil of any appreciable amount of fertility, which

cannot be said of any other exported product of the soil. *The sending abroad of our surplus cotton is therefore all gain.* The energy of our agriculturists ought, therefore, to be persistently directed to the growing of cotton as their main crop. This should be the policy of our government. We should never permit our supremacy in this field to be put under a cloud for a moment. The fear occasioned recently by the advent of the boll weevil in our country, that the United States would in the near future, or sooner or later, be incapable of furnishing what cotton the foreign spinners need, has caused greater activity in foreign lands in growing the crop which is America's greatest export, and to which is due our country's healthy bank account in those foreign countries. This fear should be dispelled once and for all, to hold what we have for all times. How can we do this? I say: "*Eradicate the cattle tick.*"

The boll weevil is here to stay, as far as we can see at present. By research and experiment it has been demonstrated that under certain conditions the boll weevil need not interfere with the successful growing of cotton. On the contrary, we have lately frequently seen greater yields of cotton in boll weevil infested territory than ever before. This was in many instances not accidental or due to natural causes, but to the artificial conditions created by man, in this instance by the farmer. What are these conditions? I will enumerate them in the order of their importance, as was shown by my own experiments, as well as those of others, to-wit:

First, the preparation and the mechanical condition of the soil, *before planting.*

Second, the proper fertility of the soil.

Third, proper, rapid cultivation after planting.

Fourth, the proper variety of seed.

As will be seen, the *preparation* of the soil—the seed bed—*before planting*, is the most important factor in the successful raising of cotton. The proper preparation of the soil, its physical condition, for the reception of the seed, and thereafter the growing of the cotton plant, is very largely dependent on the humus contained in the soil. If the soil has been deprived of this vegetable substance it is very nearly sterile and valueless

as a producer of crops. Fields continually planted in one crop will eventually have no humus left in them (and thus become profitless to the farmer), *unless the necessary humus is regularly restored by fertilization and rotation of crops.* NO FERTILIZATION IS EQUAL TO THAT BROUGHT ABOUT BY THE USE OF STABLE MANURE OR THAT DUE TO THE FEED LOT. It will restore the soil better than any other fertilizer, especially if rotation of crops is practiced also. To secure, therefore, the greatest requisite to successful cotton planting, *i. e.*, perfect preparation of soil and favorable soil conditions, *we should have fertilization with stable manure.* To have stable manure we must have live stock, especially cattle, to utilize to the fullest our cotton seed and the roughage produced by a soil-conserving agriculture. To have cattle we must be rid of the parasitic fever tick. And conversely, if we are rid of this tick we will have cattle, and thence stable manure, and also rotation of crops, as a live stock industry has this in its wake. And consequently we will have the foremost requisites for the successful cultivation of cotton; that is to say, a friable, rich soil, warm early in spring, moisture-retaining during drouth, stimulating to plant growth throughout the growing season; in other words, all the foremost essentials to the growing of a profitable cotton crop in a boll weevil affected country. I assert, that with the thorough preparation of such a soil, as soon as the seed is entrusted to it half of the crop is made, and seventy-five per cent of the ordinary risk of crop production is overcome.

The second essential in the successful culture of cotton (in a weevil infested territory) is the proper fertility of the soil. It is quite a mooted question as yet in how far chemical fertilizers do contribute to soil improvement, especially if used alone for a long period of time. Aside from the objectionable feature of great cost, chemical fertilizers must also be objected to in that they do not restore humus, *i. e.*, "life," to the soil. To properly fertilize the soil so as to bring about this second most necessary feature of the successful production of cotton in the weevil infested country we must have a healthy live stock industry, consisting mainly of cattle.

With soil preparation, and fertilization with stable manure

to have a seed bed as nearly perfect as possible, and practicing crop rotation, the yield of cotton per acre can be very greatly increased with the boll weevil present. It can be doubled over the yields of former years by all, trebled by many, and even quadrupled by the few most expert and intelligent. My own experiments have led inevitably to these conclusions. In other words, I wish to state in the most emphatic terms that, comprehensively viewed, *the eradication of the Texas fever cattle tick will more than offset the invasion of the boll weevil*, concerning the production of cotton.

Rid our country of the tick, and a live stock industry will follow in the cotton growing states as a subsidiary industry. We will rotate our crops, and we will grow cotton right. We will grow cotton in quantities to suit the demand of the world. No one need thereafter ever fear that the United States will not be able to furnish what cotton the world needs. We are good for thirty million bales on half the land now in cotton culture, provided we are rid of the cattle tick.

America's greatest export need not be put in jeopardy ever if we exterminate the cattle tick. The extermination of the Texas fever tick will be notice to all the world that we will have no competitors in the cotton producing industry. Our bank account in foreign countries will swell to greater proportions from year to year, due to the ever increasing exportation of cotton; this, of course, provided the cattle tick is driven from our country.

Rid our fair land of this pest, then the South will be a cotton country greater than ever; a country of plenty such as the world has never seen.

Cotton should and will forever remain our chief crop. It is the ideal crop for the South. It is the ideal crop for a country's export. Its continued exportation will only make our country richer with every year; for, if we should send twenty million bales of cotton—pure cellulose—abroad each season, equivalent to ten thousand million pounds—or even on a still greater scale—we would not send along with it enough of our soil fertility to decrease our yield any for a thousand years to come. But our ships would return with the foreigners' gold to



the tune of one billion dollars per year—all this and much more, only—provided, we exterminate the cattle tick.

To maintain our cotton industry in its supremacy is but the soundest statesmanship. To keep the cotton crop at its supremacy in the Southern United States is statesmanship equally renowned. To maintain and ever increase our cotton exports should be our government's never-failing policy. Such aim will make us permanently the creditor nation of the world. To export cotton—cellulose—is truly a country's ideal business with foreign people, for there is connected with it no loss—all is gain.

Eradicate the cattle tick!

